Dan Fallon
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Montana Brewery Oral History Project
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Brian Shovers: This is Brian Shovers. This morning I'm interviewing Dan Fallon of McDantim here in East Helena. The date is July 18, 2017. The first question I is have, please tell us how you got involved in the gas blending business?

Dan Fallon: That goes back a long ways. How far back do you wanna me to go?

BS: Well, the beginning.

DF: Okay. My dad bought part of a company called Draft Systems in 1970. Draft Systems was started, as I understand it, by a beer distributor from Montana named Mack Johnston. Draft Systems purpose was to design new valves for kegs. If you go back, you know, pre-1970s, then you probably understand this. You tapped a keg by driving a spear into, you know, the keg. Pushing a cork out of the way and used a compression nut to hold this spear down in the bottom of the keg. It was not very sanitary. It was pretty dangerous. You'd kill people every year because they'd loosen the nut without unpressurizing the keg. The spear would come and hit 'em in the head.

Mack Johnston was a beer distributor. He decided he had a better idea. He sold his company to a large conglomerate that my dad worked for. My dad had been an aerospace engineer. He was a troubleshooter for that company that would work with smaller companies. Somewhere around 1970, that company, Republic Film Industries, got themselves in trouble. Bank of America stepped in and took 'em over. They sold off the companies that weren't making money. Draft Systems was one of 'em. My dad was able to buy it. My dad Mert Fallon, actually as far as I know, had the first patent for the modern keg valve in the United States -- the Sanke valve. He had developed a number of valves along the way, but the one that took was the Sanke valve.

BS: How do you spell Sanke?

DF: S-A-N-K-E.

BS: Huh.

DF: I … honestly, I believe that that's a copy of a design out of England. Not out of England. Out of Europe. In the late … end of the gas story is … we'll will get to the gas. My dad did a lot of gas things, but mostly he did keg valves, cup [unintelligible], things like that. He eventually sold that company to Micro Matic in the late-1980s.

Around that time, just before that time, Guinness had put a spec out to the industry, saying they wanted someone to make a gas blender for gas. It would like this and they gave out to specs. My dad started working on it in conjunction with an engineer out of Pennsylvania that he'd done a lot of work with. They came up with the blender in the late-eighties. We started selling 'em in 1991 in England. The real demand … the real knowledge and demand for mixed gas was in the UK initially.

My family has owned a company in England until this year. We sold it to the … we started selling it to the employees this year. This company was originally called Beverage Systems Limited. Now it's just called BSL. We didn't try to sell blenders until 1994, we went to the first craft beer show that we attended

in 1994. Which I think was about it's about eighth of the other craft beer shows. We were not at the beginning of that. That's the … that's how we got into it -- mixed gas for beer.

BS: What is the significance of this technology to the microbrewery industry?

DF: Well, I'm not sure what we'll get into this with this, but what happened, even back in the seventies and before, was the larger US breweries stepped away from beer quality drastically. They closed their schools. Used to be a great school in Colorado. They closed it and moved a distributorship into it. They really de-emphasized beer quality for draft beer. I actually believe that's a big part of the reason that the craft brewers exist today is, you know, a large industry quit caring about the variety and the quality of their product.

The other half of it is I think Americans are just incredibly creative and entrepreneurial. If there's a hole, Americans are gonna find a way to fill it. Our role really has to do with we're part of a group of people back then, in the early-nineties, who really started caring about draft beer quality and pushing draft beer quality. I don't … I think the quality of draft beer and the success of craft beer, go hand in hand. That if you're gonna brew a great beer, you've gotta help your customers … make sure your customers, as in the retail facilities, pour quality beer.

Prior to our gas blender, which was … I don't think I'm being just immodest. There were blenders before us, but they weren't accurate enough for dispensing beer. They tend to use air instead of nitrogen. The other alternative that existed, was to use what they called Aligal or dentist gas. It would be a very low CO2 percentage. It would, in effect, make beer too flat. It would take away a lot of the taste and flavor. You know, our piece of the puzzle, is we were able to help the industry pour quality beer and worked to help promote that and understand it.

BS: Is there any microbrewery in Montana that doesn't use your blender?

DF: I have no idea, tell you the truth. You know, our sales model is not direct. We … because it's a one-time sale, for relatively low-cost item, we really couldn't put someone out on the street and sell blenders. We have helped a lot of the small breweries develop their draft systems, install their draft systems, and do mix scans [?]. There are a lot of 'em in Montana. I don't have any idea if they all have it or not.

BS: How does the McDantim Trumix Blender work?

DF: It's a fairly simple device on the surface. What we do is, we use each gas -- we mix nitrogen and CO2. The point of that is -- what we wanna do is choose a blend that keeps the perfect CO2 pressure on the beer. We just use nitrogen to provide the extra push.

When the two gases come into the blender, each one of them -- the CO2 serves as the balance control for the nitrogen. The nitrogen coming in, once it's gone through, its … we call it a relay. It's a control device. It then sets the final pressure, which the CO2 matches. That's an awkward way of saying it, but basically of what we do is match the pressure of the two gases. We match 'em to about a 1/300 of a pound. It's a very accurate pressure balancing system.

One of the implications it had, is that if either gas is present, the blender shuts off. That way a bar owner doesn't run out of nitrogen and find out that he's over carbonated, you know, ten tanks of beer. He just realizes he can't pour beer. He knows he needs to replace his nitrogen or CO2. Having balanced the two gases, we then put 'em into basically a hollow cylinder, which is made of centered [?] material that controls the flow of each of the gases. As we can adjust. It's very hard to do without pictures. We have a mutable piston in that cylinder. Where we set the piston, determines the blend. We actually … every

blender gets hooked up to an analyzer and our staff sets the blend and then sets the pressure balance. That's the system.

BS: Great. I don't if you answered this already, when and how … when did you receive the patent for this system?

DF: There are several patents. The first one would've been in the late-eighties. I mean, honestly all of our patents have expired. You don't get to renew 'em. I think that our customer service and quality have been the main thing that keep us from having a lot of competition.

BS: Do you have some competition?

DF: Nope. Not yet. Our competition actually are other ways. Essentially what we're doing with mix gas is putting hydraulic pressure on the beer. The CO2 has to be there to keep the carbonation right. Then, in most bars, you need extra hydraulic pressure to push the beer where it has to go. We use mixed gas to that. The other alternative is to us beer pumps. A beer pump takes and puts … basically it's a gas driven pump that puts hydraulic pressure on the beer. We compete with other technical approaches. The other competition we have is gas companies can premix gas in cylinders. For most bars, except the smallest of bars, it's much cheaper to mix your own than it is buy … continue to buy cylinders of mixed gas. One of our biggest … some of our biggest distributors are gas companies who, you know, provide the gas and either sell or lease the blender.

BS: Right. How widespread would say its use is?

DF: Well, almost every bar in the UK that has a blender of some sort has, one of our blenders. In England. That market's been pretty saturated for quite a few years. I would say that we have sold … we're up to about 80,000 blenders in the US. I'm guessing that they're probably a quarter of million of bars and pubs that could make use … restaurants that can make use of our blender. That would be better off with it. We have a long way to go. You know, we do have … I know we have well over 80,000 sold in the US.

BS: Is there anybody in Germany that's doing anything?

DF: Germany's pretty funny actually, I mean …. Of course, these are my opinions. I was at a brewery show. The largest brewery show is in Munich every four years. It's called Interbrau. It does coincide with Oktoberfest, every four years. It's the biggest show I've ever been to. It's probably ten times, at least the size of the craft brewing show today. I think last year they had 13,000 people at the craft beer show. In 1992, I was there. I had a talk with a German bar owner. He said that Germany doesn't have a problem with over carbonated beer. I said, "That's interesting." Later on, in the conversation, he mentioned that most bar owners he knew, untapped the kegs at night and let 'em vent off. Later, I found out that when you buy a beer in Germany, it usually takes about ten minutes to pour it 'cause they do it in about three shots because they have to let the carbonation boil off between it. Actually, even a year ago, I read an article about why the three-part pours is so important. They do it because they basically, drastically over carbonite the beer. Before they can serve it, they have to let it vent some of the carbonation off during the pouring process.

BS: You'd think as efficient as the Germans are, they would've gone for a blender. That's just ….

DF: We do. The only time we had a patent challenged was from a German company, who copied our blender, and tried to have our patent invalidated. We managed to defend that in the German courts. A lot of people are very set in their ways, you know. I mean, we sold 80,000 blenders to the, you know, the

beer industry in the US. But, in 1995, the second year we were trying, we sold sixteen total. It's been a long, you know, a long educational battle. We never would've succeeded without the craft beer movement, you know. They were the first ones to understand the value of quality.

BS: What was the gas blending technology before the invention of the Trumix? How well did it work?

DF: They did two different things. There were two different kinds, actually three different kinds of blender, that I know …. Well four. Sorry. I can think of four different kinds of blenders. The one that actually worked the best before ours, was they would hook a CO2 tank up to an air compressor. They would have a fixed orifice for the CO2. Whenever the compressor ran, it would dump CO2 into the air mix and store it in the tank of the compressor. My dad actually installed some of those systems. I remember one he did at the San Francisco baseball field. They would be the only ones that were actually accurate, but you're still using air and oxygen. Just destroys the taste of beer.

The other types -- the main one would've been needle valves. You have two needle valves you adjust, and it gives you the appropriate proportion of nitrogen and CO2. The problem is that that would only be accurate near it's maximum flow. You set up for a Friday night situation in bar, and on Friday night, you'd be fine. The rest of the time, you'd be almost hundred percent either nitrogen or CO2. It could flipflop as the cylinders emptied. There were … that was our original … our initial competition.

I knew an individual who made one based on capillary tubes. He did basically a similar thing. He used standard regulators to balance the pressure. Then, instead of using an orifice, he used capillary tubes to control the blend. But, you'd have the same problem. They simply weren't accurate at low flows and high flows. That's the real challenge, is being accurate across a wide range of flows.

BS: The flow affects the taste of the beer?

DF: It does. It does 'cause if you go too rich a nitrogen, the beer goes flat. I don't know if you ever tried it, but if you pour a beer into a glass very carefully so you don't create any head at all, and taste it, it's a very different tasting beer then one in which you do create the foam. That's a little bit of what happens with flat beer, is the flavors that are there chemically don't get exposed. They don't … I'm not expert but I've had brewers explain that there are long chain molecules that are sheared when the CO2 breaks out of solution. Those actually create the vault of flavors. They don't create 'em, but they expose 'em. Then, over carbonated beer, creates tons of waste and creates a much sharper bite. Most craft beers don't have as much flavor as a more mild, you know, domestic pilsner. They don't have as much CO2. They have more flavor inherent in the brewing, you know, in the beer itself. If your blender isn't accurate across a whole range of flows, you are gonna over-carbonate or under-carbonate your beer, certainly.

BS: You may have answered this already, but at what point did you begin working with the microbrewers in Montana?

DF: We came here in … I moved here in October of '95. We were certainly doing it by '96. We … with Montana's brewing laws it's kinda hard create a clear line, you know, we needed Jim and Eric from Sleeping Giant Brewery.

BS: Sure, yeah.

DF: They were serving a lot of their beer out of the Brew House [in Helena]. We gave the Brew House a blender. That was one of the first ones we did. Bert & Ernie's was actually the first one we put in town. We helped, you know, … that helped their system considerably. We've been working with the Blackfoot [River Brewing Company] as long as they've existed, you know. When we were first here, you know, we

were one of their customers when they were sellin' home brew supplies. You know, we bought kegs from 'em and things like that. It just kinda evolved from there. We started with local bars and then started working with the local breweries.

BS: Did you do any work on the brewpub legislation in 1999 that allowed the breweries to serve on-premises -- to sell beer on-premises?

DF: No. We weren't …. Honestly, we weren't that sophisticated at that time. I heard about afterwards, but we didn't know it was coming up at the time.

BS: Maybe this came out before, how many taverns do you supply in Montana?

DF: Again, I have no idea. We … our distribution model is, you know, we sell to gas companies generally. Either gas companies or beer equipment, you know, wholesalers. We have a few small companies we work with. We used to work with a guy, who worked for one of the distributors here. He put out a lot of blenders in Helena. We do work through generally … both General Distributing and American Welding and Gases here. Then, a lot of the people who buy 'em from some of our larger wholesalers, but we don't have any way of knowing anymore.

BS: How many people do you employ here at your factory?

DF: There's twenty-four of us right now.

BS: Right. How long have you worked out of this location in East Helena?

DF: We're still technically in Helena. We've been here … we've moved in right around Christmas this year -- last year. Just under a year at this location

BS: Before that?

DF: Before that we were out on Montana Avenue. Before that, and before that we were on Euclid. Before that, we were above the Parrot [Confectionery]. We started with one office above the Parrot on Last Chance Gulch. I still miss that location. I loved walking to work. We outgrew that, so we moved out on Euclid and rented a 2,500 square foot building. We bought a 5,000 square foot building about fourteen years ago. We just built this new building this last year. They finished it in December.

BS: How important is the microbrewery business to the Montana economy?

DF: I kinda have two answers for that. The answer I really like, and believe in totally, is the craft brew industry is just a great model for America today. An example of this goes back to a craft beer show, a number of years ago, in San Francisco, maybe eight years ago. They announced that, you know, doing this study they found that the large breweries produced ninety percent of the beer in America and created 100,000 jobs. The small brewers who created ten percent of the beer in America, created 100,000 jobs.

I think what separates the craft beer movement in particular, is it's innovative. It's not dominated by large corporation logic. It's very creative, so they're a lot of people employed. If you look at the small breweries in our area, I think everyone of them donates a fair amount of their income in many different ways to the community itself. I don't know enough to know what the percentage is, I think that they add to the economy in so many ways it would be almost hard to quantify, you know. It'd be real easy to figure out how much grain, how much barely -- malted barley -- a large brewery buys out of Montana. I think I read that the large breweries in the US dropped their orders for malted barley sixty percent in 2017. You

know, where the craft brewers are constantly growing. I think this kinda impact of something like the craft brewers is gigantic.

BS: The final question I have, is how important are microbreweries to the social fabric of Montana communities?

DF: I'm a businessman, not a sociologist. I get to travel to England a lot. What always struck me, is when you got into a small-town pub in England, you're going into to a community. There will literally be, you know, a group of people who are twenty sitting next to a couple who are eighty, who walked down and had a beer together. You don't see that in bars in America. You do see it, especially in Montana, especially in the town pubs. Which tend to be, you know, very community oriented. The most remarkable thing about that, in some ways, is the folks that have been around a long time, like Blackfoot River, actually extend a helping hand and have helped people like Ten Mile [Creek Brewery] put in their brewery. They don't see 'em as the enemy. They see 'em as compadres. I think, again it would be very hard to quantify, I think they add a lot to the culture and the social fabric of Montana.

BS: I did an interview with Hal Harper, who was the one who introduced the legislation to allow …

DF: Oh yeah.

BS: … the brewpubs to serve on-premises or sell their beer. He was inspired by his father, who was a Methodist minister here in Helena. His father's … one of his main passions was anti-gambling. He was seeing the transformation of taverns around Montana where, you know, they used to be a place for social gathering and now they were just gambling places and big screen TVs and, you know. The place where people could go and converse and talk about issues and stuff, was no longer there. He's the one that inspired Hal to move this legislation.

DF: That's a great story. Yeah, I, again I … probably shouldn't be published, I think that gambling in Montana is ruined several industries. You know, the hospitality industry is all but destroyed because of it. I'd like to see it gone. It benefits a few and harms a lot.

BS: Okay, well I don't have any further questions. Is there anything you'd like to add?

DF: No, you know, it's hard to know what to say. This industry has just been so much fun. I can't, you know, I apologize a little bit. I tend to shift into a professional mode when I know I'm being interview, but, you know, you start working with the folks who own their breweries in Montana -- they run a range, you know.

In time I've being watching this, when I started I had a conversation with a guy out of Colorado -- a brewer I knew out of Colorado. He said, you know, a few years go we'd all get together and we'd get real excited. We're brewin' beer. We're brewin' beer. This was back in '96, '97. He said, he was lamenting now they get together -- I brew better beer than you brew. He said, you know, already back then it'd changed.

Today, I think, even in Montana, has brewers that, you know, would almost run over the competition with a truck, if they could. But, the majority of 'em are people that really wanna be able to do something they love doing and be proud of what they do and be proud of their communities and be part it. I can't remember an industry where that was true before. I just and it's national. You know, I visit a gas company in Maine. We've done really good work. They can't wait to take me out to their favorite brewery and introduce me to the brewer and show me their beers. You know, the community pride in it, is really just remarkable.

This industry is … it's been … well, I'll put it this way -- when my dad had his company, I was just finishing high school. I'd just finished high school the year he bought it. The last few years I was in high school, he was in the industry, he just hadn't bought the company yet. I swore I would never be in the brewing industry. I just, you know, I made sales calls for him as Pabst and Schlitz and stuff like that in my younger years. There was nothing warm or exciting about it. It was ways to make money, you know, but it's not like that today in the craft brew industry. I think they're changing the face of America in a very positive way. It's not just about …. Beer's so weird, because you have to be half scientist, half mad scientist and half artist, you know, to make a brewery work. Those guys are just great -- those people. Sorry, they're not all guys. Those people are just great to be around. That's been the greatest joy in this.

BS: Thanks for your time!

DF: Yeah, you're very welcome!

[Recording ends]